

CHAPTER 6

PERSONAL PREVENTIVE PRACTICES

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PERSONAL PREVENTIVE PRACTICES

INTRODUCTION

Health, as defined by the World Health Organization, is a state of comprehensive physical, mental and social wellbeing, and not merely the absence of disease and infirmity. Wellness is a disciplined overall pattern of good lifestyle choices leading to optimal health and quality of life; a way of life aimed at heightened vigor, fitness, and outlook. You can do a lot for yourself that will prevent illness from striking and prepare you to better deal with problems should they occur:

- Take charge of your health. You are the person most responsible for your state of health.
- Learn as much as you can. It is never too late to make changes.
- Put together a master plan.

Health is pleasurable. Good habits have their own immediate reward. If changing your behavior for health is making you feel less well, you're doing something wrong. Exercise makes you feel better. Good nutrition makes you feel better. You will even feel better if you stop smoking.

This chapter describes seven habits that promote health. The key to success is to start out slowly. Start with the most important concern and work on it first. Make changes in achievable steps that reinforce your successes and keep you motivated to continue. One healthy change leads to another. Each positive change you make, regardless of how small, improves your overall health. (These recommendations are adapted from: <http://www.wellnessletter.com/>)

HABITS FOR HEALTH

HABIT 1: QUIT SMOKING

If you don't smoke, don't start. If you smoke, stop!

There is no safe cigarette, pipe, cigar, or chew—no safe level of consumption. Tobacco contains dangerous substances; among others, tar, nicotine and carbon monoxide. Tar is a mixture of several chemicals that condense into a sticky

substance in the lungs. Nicotine is an addictive drug that is absorbed from the lungs and acts mainly on the nervous and circulatory systems. Carbon monoxide lessens the ability of red blood cells to carry oxygen throughout the body. Smoke particulates are complex chemical mixtures that settle in the mouth, throat and lungs and can cause chronic lung disease and cancer. Some brands of tobacco contain less tar and nicotine than others, but there is no such thing as a safe brand. Switching to mild cigarettes does little to help: heavy smokers adapt their smoking habits by taking longer puffs and inhaling more deeply.

If you smoke you may be damaging the health of your children. Children whose parents smoke have more diseases of the respiratory tract, including life-threatening asthma, than do children of nonsmokers.

It is never too late to quit. Most people who quit smoking will enjoy major health benefits the rest of their lives. Also, you will notice that your environment will be friendlier when you are not a smoker. A lot of the daily hassles and high costs that impair the quality of your life as a smoker go away when you stop this habit.

Here are some tips for quitting:

- **Tip 1:** Decide firmly that you really want to stop. Believe that you can. Analyze your smoking habits. Make a log (small enough to carry with you) of every cigarette you usually smoke in a 24-hour period, along with the times when you automatically light up, such as: with every cup of coffee, after every meal, or as you begin work. Prepare a chart to display your consumption of tobacco and its cost. This increasing concern with the act of smoking is a good way to prepare for the task of giving up the habit. Set a date on which you will stop smoking. Announce the date to your friends. When the date comes, stop. This is often the most successful and in the long run the least painful way to break the smoking habit. It may help to choose a time when your usual routine is being changed for another reason.
- **Tip 2:** Feel free to choose devices you can use safely as a cigarette substitute during the early days. You can expect that the physical addiction to nicotine may produce withdrawal symptoms. You may become nervous and irritable. After several days, the physical addiction can be expected to drop noticeably, while the psychological craving can sometimes last a long time. Make up your mind that there can be no turning back. If your hand seems empty without a cigarette between your fingers, hold a pencil or pen. In addition, practice the relaxation exercises that are discussed later in this chapter. Nicotine chewing gum or nicotine patches can help many people quit, and a health care worker can give you advice on how best to use these medications. Nicotine therapy is not the only medical approach to smoking cessation. A medication called bupropion can mimic some of the central nervous system effects of nicotine and act as a substitute for nicotine in

people who are trying to quit cigarettes. A doctor can prescribe bupropion for you.

- **Tip 3:** Enjoy not smoking. Do not forget that you're saving a lot of money. You can reward yourself every week or so by enjoying something nice with some of the money that would have been spent on tobacco. Enjoy your increasing stamina, the food that tastes so much better, the friends who are happier, the clothes that last longer, the skin that looks better. Extend your log to track your savings and keep a journal of the improvements you notice.
- **Tip 4:** Combine your stop-smoking program with an increase in exercise. The two changes fit together naturally. Exercise may take your mind off the smoking change. In addition, the occasional (or frequent) tedium, boredom and the need to stay awake and alert shipboard may be eased or alleviated by an active exercise program. Possible weight gain and the temporary tendency to irritability are the main negative consequences of stopping smoking. Exercise will decrease the tendency to gain weight in the early weeks after you stop smoking and can improve your mood.

Smoking begins in adolescence and under peer pressure, when the possibilities of ill health appear to be too remote to be real. The progression from an occasional cigarette to heavy smoking usually occurs so gradually that young people never quite realize when they actually become addicted. If you are a smoker and have adolescent or preadolescent children, you can set them a good example by stopping now. Also tell them the facts: smoking is a very expensive habit, in terms of both money and health; tobacco contains poisonous substances.

Resources for additional help to stop smoking are available in the CDC Guide to Smoking Cessation at: <http://www.cdc.gov/tobacco/how2quit.htm>.

HABIT 2: THINK ACTIVE!

Considerable benefit can be gained with just moderate activity. All activity counts toward health. Running or walking, work-related activity, stair climbing, and dancing all contribute to a healthier lifestyle.

Start out slowly and gradually build your activity level over a period of months. This will help avoid soreness and injury. Incorporate opportunities for physical activity into your day, walk up stairs every chance you get, walk or jog at lunchtime, and take advantage of any other shipboard activity opportunities. Make off-duty time active: walk, start an exercise group class, and join in sports activities.

Staying active supports three general goals:

- Improving aerobic capacity;
- Strengthening muscle groups; and
- Increasing flexibility.

Improved **aerobic capacity** is reflected in the sustained ability of the heart and blood vessels to carry oxygen to your body's cells. Of course, running, swimming, cycling, or rowing are great, but other excellent activities for building endurance include brisk walking, in-line skating, and aerobic dance. If you haven't been exercising at all, start with a walking program. To gain noticeable health benefits, only 30 minutes of moderate physical activity such as walking, and only over the course of most days of the week, is enough. Targeting a particular heart rate probably is not very critical. Aerobic exercise shouldn't be all consuming; if you cannot talk to a companion while you're exercising, you're probably working too hard. For greater cardiovascular benefits you need to perform moderate to high-intensity aerobic exercise three to five times a week, for 30 to 40 minutes, in addition to warm-up and cool-down activities.

Muscular fitness consists of strength (what a muscle produces in one effort) and endurance (the ability to perform repeated muscle contractions in quick succession over a period of time). Some ships have an area that could be made into a "mini-gym." Adjustable dumbbells to which you can add or remove metal disks are good on land but can be dangerous with a ship's rocking. Explore other equipment options. You can also use exercise bands of broad elastic or exercise tubes in various sizes, which are really handy when your shipboard space is so limited as to prohibit bringing bulkier equipment. The principle of elastic band exercises is that as you stretch the elastic during the exercise, it provides continuously increasing resistance. Women should start with a pair of two- or three- pound weights or elastic equivalents, men with five- or ten- pound weights. Most equipment comes with an illustrated set of instructions that shows you recommended exercises.

Perform moderate intensity resistance workouts twice a week lasting at least fifteen minutes per session (not counting your warm-up and cool-down). Do up to 10 separate exercises that train each of the major muscle groups; start with one set then progress to two sets of 8-12 repetitions each until the point of muscle fatigue.

Many trainers recommend alternating upper body strength training days with lower body strength training days. A simple upper body strength training session could consist of the bench/chest flys for the pectorals, lateral raises for the deltoids, upright rows for the trapezius, triceps extensions, curls for the biceps, and push-ups. The next day, a simple lower body strength training session could consist of squats for the buttocks, heel raises and dips for calf muscles, straight leg lifts for the quadriceps, inner thigh leg raises, and step-ups for the buttocks, quadriceps, hamstrings, and calves. Abdominal muscles can be strengthened using curls and curl downs (negative sit-ups).

You may feel that the biggest barriers to exercising when at sea are time and space limitations. Strive to at least maintain your fitness level. You can do this by working out at your usual intensity a few times per week and for shorter durations than your regular exercise; this is much better than not exercising at all.

Flexibility refers to the ability of the joints to move without discomfort through their full range of motion. This varies from person to person and from joint to joint. Good flexibility is thought to protect muscles against pulls and tears. Try to perform flexibility exercises three to four times a week, or even daily, only and always after a thorough warm-up. Stretching should always be preceded by a brief five to ten minute warm-up, such as jogging in place or energetic walking. Stretching muscles while they are cold may injure them. Gently stretching before you begin aerobic exercise is useful because it makes warmed-up muscles looser and decreases the chances of injury. Stretching again after aerobic exercise can help prevent stiffness. A basic stretching session would consist of stretches of the neck, the shoulders, the arms, the calves, the spine, the outer thighs, the hips, the lumbar area, as well as the butterfly stretch for muscles in the groin, and a crossover stretch for the lower back. Each static stretch should be held at least ten seconds, working up to 20 to 30 seconds, and usually repeated three to four times.

Ten Good Tips for your Exercise Program:

- **Tip 1:** Set realistic exercise goals. Also set goals that are very specific. Re-adjust your goals to your strength and energy level.
- **Tip 2:** Whatever activity you pursue, don't overdo it. In general, don't increase the length or frequency of workouts, the intensity, or the distance, by more than 10 percent a week.
- **Tip 3:** The oft-repeated motto "no pain, no gain" is a myth. Exercise should require some effort, but pain is a warning sign. It usually indicates that you're not warming up sufficiently or that you're exercising too long or strenuously and are causing small muscle tears.
- **Tip 4:** Control your movements. If you are not in control, slow down. Rapid, jerky, flailing movement sets the stage for injury.
- **Tip 5:** Pay close attention to your form and posture while exercising. Keep your back aligned, your abdominal muscles contracted, buttocks tucked in, and knees aligned over the feet. When you are starting a new program, have someone else watch you to make sure your position is correct throughout your workout.
- **Tip 6:** Don't bounce while stretching. Bouncing can increase the chance of muscle tears and soreness. Instead, perform static stretches. These call for gradual stretching throughout a muscle's full range of movement until you feel resistance. This gradually loosens muscles without straining them.
- **Tip 7:** Use good footwear. Wearing improper or worn-out shoes places added stress on your hips, knees, ankles, and feet, where up to 90 percent of all sports injuries occur. Choose shoes suited to your activity and replace them before they wear out. Aboard ship, choose shoes with rubber soles to prevent falls.

- **Tip 8:** Avoid high impact aerobics. Aerobics instructors suffer injuries to their bodies because of the repetitive, jarring movements of some routines. Substitute the marching or gliding movements of low-impact aerobics for the jolting up-and-down motion of typical aerobics routines.
- **Tip 9:** Warm up and cool down. Slowly jog for five minutes, even in place if need be, before your workout to gradually increase your heart rate, and core and muscle temperatures. Cool down after exercising with five minutes of slower-pace movement. This helps to prevent potential muscle stiffness.
- **Tip 10:** Replace fluids lost through sweating and exhalation. This is particularly important in hot weather, when you can easily lose more than a quart of water in an hour. Even if you don't feel thirsty, it is important to drink at regular intervals when exercising. Water is fine; sports drinks add a lot of calories to your nutritional intake.

Beginning an exercise program can be challenging. You are asking your body to do something it has not done for a while. Even after you have a well-established exercise program, there will be interruptions. You may be ill, you may be in a setting where it is difficult to exercise, shipboard duties may take precedence over leisure activities, or you may sustain an injury. Deconditioning is a surprisingly rapid process. Setbacks should not change your overall plan. The general rule is that it will take as long to get back to your previous level of activity as you were out. If you cannot exercise for two weeks, gradually increase your activity over a two-week period to get back to your previous level.

After your exercise program is established, make sure that it becomes a habit you want to continue for a long time. Exercise should be fun. In fact, as you get older, exercise can become your body's best friend. Once you are fit, you can take advantage of your body's increased reserve to vary your activity more than you did during the early months.

HABIT 3: EAT FOR NUTRITION

The focus of this section is to encourage healthy eating habits rather than specific foods for each disease entity. In 1980 the United States Department of Agriculture and the United States Department of Health and Human Services first issued Nutrition and Your Health: Dietary Guidelines for Americans to provide practical dietary advice based on current research. In addition, the Dietary Guidelines Advisory Committee was established to incorporate new scientific data, and to update the guidelines. The latest revision of the Dietary Guidelines for Americans provides the basis for all Federal nutrition information and education programs for healthy Americans. They are for healthy people two years of age and over, and are not for people who need special diets because of disease and conditions that interfere with normal nutrition. Generally, these guidelines can be followed for a short period of time by people with chronic diseases until more specific advice can be

obtained from a Registered Dietitian. Persons with diabetes and other diseases require close dietary surveillance.

A healthful diet provides variety and is moderate in fat, sugars, and sodium. But it doesn't mean no-fat, no-sugar, no-sodium, no-fun meals! If one occasionally eats foods that are higher in fat, sugars, or sodium, balance them during the day with other foods that are lower. It's the total diet that counts.

These Guidelines offer tips for helping to choose foods for a healthful diet:

- **Eat a variety of foods.** The body needs more than 40 nutrients for good health. The nutrients should come from a variety of foods, not from a few highly fortified foods or supplements. A varied diet is defined below by the Food Guide Pyramid with suggested numbers of servings from vegetables, fruits, grain products, dairy products and meat/meat substitutes.
- **Maintain healthy weight.** A "healthy" body weight depends on the percentage of body weight as fat, the location of fat deposition, and the existence of any weight-related medical problems. Currently, there are no precise ways to describe healthy weight. However, using tables with suggested weight-for-height-and-age is a popular method of estimating recommended body weight. Go easy on foods that supply mainly calories - sugars, sweets, fats and oils. A number of studies suggest a possible association between excess body weight and several cancers including breast, uterine, colon, gallbladder, and prostate.
- **Choose a diet low in fat, saturated fat, and cholesterol.** Choose lean meat, fish, poultry, and dry beans and peas as protein sources. Use skim or lowfat milk, and lowfat cheese and yogurt. Use egg yolks and organ meats in moderation. Of all the dietary factors thought to affect cancer, fat has been the subject of the most research. Substantial evidence suggests that excessive fat intake increases the risk of developing cancers of the breast, colon, and prostate. The National Cancer Institute and National Cholesterol Education Program recommend reducing total fat intake to 30% or less of total calorie intake. This level of fat intake can be achieved by a change in eating habits and is also an effective way to reduce total calories.
- **Choose a diet with plenty of vegetables, fruits, and grain products.** Consuming more vegetables, fruits, breads, cereals, potatoes, pasta, rice, and dry beans and peas are emphasized especially for their complex carbohydrates, dietary fiber, and other components linked to good health. Some of the benefits from a high fiber diet may be from the food that provides the fiber, not from fiber alone, so fiber from foods is recommended over fiber obtained from supplements.

- **Use sugars only in moderation.** Limit all sugars table sugar, brown sugar, corn sweeteners, syrups, honey, and molasses. Limit the foods high in sugars, such as prepared baked goods, candies, sweet desserts, soft drinks, and fruit-flavored punches. Eat fresh fruits, unsweetened frozen fruits, or canned fruits packed in water, juice, or light syrup. Reduce the amount of sugars used in recipes.
- **Use salt (sodium) only in moderation.** Cook with only small amounts of added salt. Flavor foods with herbs, spices, vinegar, or lemon juice. Limit use of high-sodium condiments (soy sauce, steak sauce, catsup), pickles and relishes, and salty snacks. Use only moderate amounts of cured or processed meats, most canned vegetables and soups. Try "no-salt-added" or "reduced-sodium" products. Most Americans consume much more salt (and sodium) than they actually need. A reduction in salt (and sodium) intake will benefit those people whose blood pressure rises with salt intake.
- **Use alcoholic beverages in moderation.** Drinking alcoholic beverages has few, if any, net health benefits and is linked to many health problems and accidents. Therefore, individuals who drink alcoholic beverages are advised to use moderation. Moderate drinking is defined as no more than one drink per day for women and two drinks per day for men. One drink may be 12 oz. of beer, 5 oz. of wine, or 1 oz. of distilled spirits (80 proof). Heavy drinkers are at increased risk for various cancers such as oral cavity, larynx, and esophagus. These risks are greatly magnified in cigarette smokers. Pregnant women should completely avoid alcoholic beverages throughout their pregnancy. Coordination and judgment are reduced by alcohol; this can lead to serious falls and on-the-job injuries. Alcohol use also increases arguments and fights.
- **Drink water.** Try to drink a minimum of six to eight glasses of water a day. Limit caffeinated beverages, alcohol, and other diuretics; however, some data indicate that drinking tea, especially green tea, may have health benefits due to antioxidant properties.
- **Consider dietary supplements.** A dietary supplement is any product intended for ingestion as a supplement to food intake. Such supplements are vitamins, minerals, herbs, botanicals and other plant-derived substances, amino acids, food concentrates and extracts. Vitamins are chemicals, usually complex ones. For anyone who eats a reasonably balanced diet that emphasizes fruits and vegetables, developing a vitamin deficiency is unlikely. The minerals needed in a healthy diet are mostly metals and salts, such as iron, phosphorus, and calcium.

National trends have shown decreasing intake of calcium-containing milk, yogurt and cheese. Calcium intake for many has dropped below what is desirable. Sufficient calcium intake is particularly important for women, especially those who have relatives with osteoporosis (weakness and

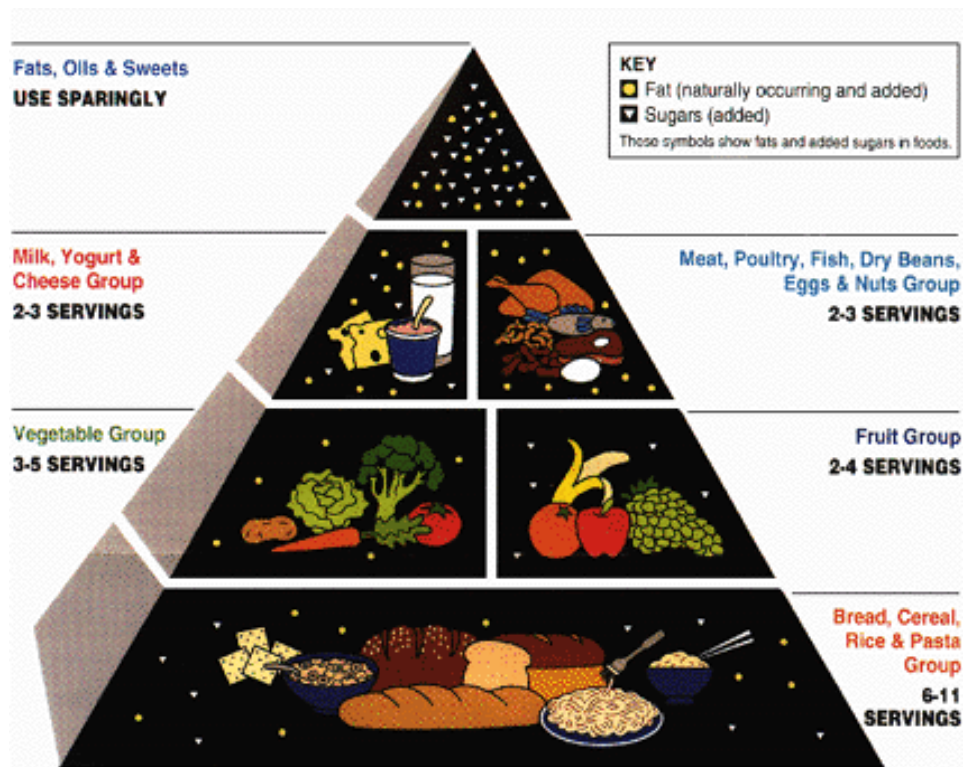
fractures of the spine and other bones). Women over age 50 should have at least 1500 mg of calcium each day. Two to three tablets of calcium supplements containing 500 mg each will usually be sufficient along with dietary sources, along with intake of vitamin D, 400 IU each day. Weight-bearing exercise is a strong stimulus for your body to absorb more calcium and to develop and maintain stronger bones.

Many other supplements, herbal preparations, and other dietary compounds are being heavily marketed to today's consumer for multiple effects including increasing strength and musculature. Serious side effects and even deaths have occurred in people taking unregulated products. Medical problems can result from the agent itself and from contaminants. (such as heart and liver complications). For example, there have been over 800 reported adverse reactions and at least 39 deaths associated with ephedra-containing substances. FDA has identified other supplements as dangerous: chaparral (liver disease), comfrey taken internally (liver disease, atropine poisoning), yohimbe (paralysis), lobelia taken internally (convulsions and death). Adverse reactions to dietary supplements are to be reported to the FDA's MedWatch system at 1-800-FDA-1088 or at: <http://www.fda.gov/medwatch/>.

These Guidelines don't suggest eliminating any food. Instead, they encourage wise choices from the vast and diverse supply of foods. They encourage eating an assortment of foods that will provide the nutrients needed without contributing too much fat, sugars, and sodium to the total diet. Food alone won't guarantee good health. But following these Guidelines helps people obtain nutrients needed and may reduce the risk of certain chronic diseases.

The Food Pyramid

The *Food Guide Pyramid* was designed to aid individuals in their selection of appropriate types and amounts of foods that could form the foundation of an adequate diet. The overall message from the Food Guide Pyramid is to select foods that together give all the essential nutrients one needs to maintain health without eating too many calories or too much fat. More information is available at: <http://www.nal.usda.gov:8001/py/pmap.htm>.



USDA and the US Department of Health and Human Services

The *Pyramid's* pieces represent both the basic five food groups (levels 1-3) and the fats, oils, and sweets commonly found in the diet (level 4). The size of the food group piece corresponds to the recommended number of daily servings from that food group. For example, the Bread group is the largest in size and it has the greatest number of recommended servings. The triangle (sugars) and circle (fats) shapes scattered throughout the *Pyramid's* pieces represent the added and naturally occurring fat and oil in certain foods, as well as the added sugars. Many triangles and/or circles in a food group piece mean that many of the foods in that category contain a large amount of naturally occurring or added fat and oil, and/or added sugars.

Starting at the bottom of the *Pyramid* and working up, selections from the food groups should be combined to form a healthful diet. It is recommended that daily choices consist of:

- Level 1: Choose plenty of grains. Bread, cereal, rice, and pasta form the broad base of the *Pyramid* and should make up the bulk of the daily diet. Whole grains are recommended.

- Level 2: Also important is an ample variety of fruits and vegetables. Fruits and vegetables are full of the vitamins, minerals, carbohydrates, and fiber needed to stay healthy.
- Level 3: Add a moderate amount of lower-fat/lean foods from the Milk-Group and the Meat-Group. Dairy products provide calcium that is important for a healthy skeleton in everyone. Foods from the Meat-Group provide needed protein, iron, and zinc.
- Level 4: Go easy on selections of food containing fats, oils, and sweets. In moderation, these foods can fit into a healthful diet. They should not, however, replace the nutrient-rich food choices found throughout levels 1, 2, and 3.

The Food Guide Pyramid lists a range for number of servings in each of the five food groups. The number of servings that are right depends on how many calories needed, which in turn depends on a person's age, sex, size and activities. Almost everyone should have at least the lowest number of servings in the ranges.

The table below tells how many servings of each major food group are needed for one's calorie level. It also describes the total grams of fat recommended for each calorie level; the Dietary Guidelines recommend that Americans limit fat in their diets to 30 percent of calories. This includes the fat in the foods selected as well as the fat used in cooking or added at the table

How Many Servings Do You Need Each Day?

	Women and some older adults	Children, teen girls, active women, most men	Teen boys & active men
CALORIE LEVEL*	About 1,600	About 2,200	About 2,800
Bread Group	6	9	11
Vegetable Group	3	4	5
Fruit Group	2	3	4
Milk Group	2-3**	2-3**	2-3**
Meat Group	2 for a total of 5 ozs.	2 for a total of 6 ozs.	3 for a total of 7 ozs.

* These are the calorie levels if low fat, lean foods from the 5 major food groups are chosen and foods from the fats, oils, and sweet group are used sparingly.

** Women who are pregnant or breast-feeding, teenagers and young adults to age 24, need 3 servings.

Note that the amount consumed at one time may be more than one serving. For example, a dinner portion of spaghetti, depending upon amount, could count as 2 or 3 servings.

What Counts As 1 Serving?

Bread, Cereal, Rice & Pasta Group 1 slice of bread ½ cup of cooked rice or pasta ½ cups of cooked cereal 1 oz of ready to eat cereal	Vegetable Group ½ cup of chopped raw or cooked vegetables 1 cup of leafy raw vegetables Milk, Poultry, Fish, Dry Beans, Eggs, & Nut Group 2 ½ to 3 ozs of cooked lean meat, poultry or fish Count ½ cup of cooked beans, or 1 egg, or 2 tbsp. of peanut butter as 1 oz of lean meat	Fruit Group 1 piece of fruit or melon wedge ¾ cups of juice ½ cup of canned fruit ¼ cup of dried fruit Fats, Oils & Sweets <i>Limit calories from these, especially if you need to lose weight</i>
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The following are "Pyramid Pointers," selection tips for a better diet. The most effective way to moderate the amount of fat and added sugars in the daily diet is to cut down on "extras" - foods in the sixth food group (fats, oils, and sweets). Also, choose lower fat and lower sugar foods from the other five food groups.

Bread, Cereal, Rice, and Pasta Group - 6 to 11 servings

- To get fiber, choose several servings a day of foods made from whole grains.
- Choose foods made with little fat or sugars, such as bread, English muffins, rice, and pasta. (Regular cake-like muffins are high in fat.)
- Go easy on the fat and sugars added as spreads, seasonings, or toppings.
- When preparing pasta, stuffing, and sauce from packaged mixes, omit or use only half the butter or margarine suggested; if milk or cream is called for, use skim or low fat milk.

Vegetable Group - 3 to 5 servings

- Different types of vegetables provide different nutrients. Eat a variety daily.
- Include dark-green leafy vegetables and legumes (beans) daily. They are very good sources of vitamins and minerals. Legumes provide protein and can be used in place of meat.
- Go easy on fat added to vegetables at the table or during cooking. Spreads or toppings, i.e. butter, mayonnaise, and salad dressing count as fat. Use low fat salad dressing.

Fruit Group - 2 to 4 servings

- Choose fresh fruits, fruit juices, and frozen, canned, or dried fruit. Go easy on fruits canned or frozen in heavy syrups and sweetened fruit juices.
- Eat whole fruits often. They are higher in fiber than fruit juices.
- Count only 100 percent fruit juices as fruit. Punches and most fruit "drinks" contain only a little juice and lots of added sugars.

Milk, Yogurt, and Cheese Group - 2 to 3 servings

- Choose skim milk and nonfat yogurt. They are lowest in fat.
- 1 ½ to 2 ounces of cheese and 8 ounces of yogurt count as a serving from this group because they supply the same amount of calcium as 1 cup of milk. However, they provide 2-3 times the number of calories as skim milk.
- Choose "part skim" or low fat cheeses when available and lower fat milk desserts, like ice milk or low fat frozen yogurt. Read labels.

Meat, Poultry, Fish, Dry Beans, Eggs, & Nuts Group - 2 to 3 servings

- Choose lean meat (lowest in fat); poultry without skin; fish, dry beans and peas.
- Prepare meats in low fat ways: trim away all the visible fat; remove skin from poultry; broil, roast, or boil these foods instead of frying them.
- Nuts and seeds are high in fat, so eat them in moderation.

Fats, Oils, and Sweets - Use sparingly

- Go easy on fats and sugars added to foods in cooking or at the table; butter, margarine, gravy, salad dressing, sugar, and jelly. Avoid candy, sweet desserts and soft drinks.

Food provides the energy needed daily; and, this energy is in the form of calories. There are three calorie sources that the body needs every day: carbohydrate, fat, and protein. They each play a different role in the body and people need different amounts of each. The calories not used will be converted into body fat whether from carbohydrate, fat, or protein. To maintain a constant weight eat the approximate number of calories used.

By improving the food choices made daily, improvements in health are possible by understanding calories and the forms they take. The following is essential to know:

Carbohydrate (CHO):

- Foods: Bread, cereal, rice, grains, pasta, vegetables, and fruits
- In the body: Carbohydrates are used as the main fuel source.

- Share of calories: 55-60%. (Current U.S. diet: 46%)
- Provides: 4 calories/gram.

Fat:

- Foods: Butter, margarine, salad dressing, fatty meats, oils, pastries, cookies, crackers, whole milk, hot dogs, french fries, chocolate, nuts, and ice cream.
- In the body: Fat provides energy and is easily converted to body fat if one eats too much.
- Share of calories: Not more than 30%. (Current U.S. diet: 38%)
- Provides: 9 calories/gram.

Protein:

- Foods: Meat, fish, poultry, eggs, milk, legumes, and beans.
- In the body: Protein is used mostly for structure.
- Share of calories: 10-12%. (Current U.S. diet: 15%)
- Provides: 4 calories/gram.

Notice that if one eats the same amounts (by weight) of carbohydrate, protein and fat, the fat will provide over twice as many calories. A low fat diet means essentially being able to eat more food and be more satisfied with fewer calories.

Foods provide a range of nutrients in addition to fats, carbohydrates and proteins. Fiber, the building block of fruits, vegetables and whole grains, aides digestion and other functions. Vitamins are substances needed in minute (but essential) quantities to facilitate all the body processes. For example, vitamin A, found in yellow and orange vegetables, is needed for vision, but too much can be toxic. Minerals, such as iron, zinc, and copper, are also needed in minute amounts – but are poisonous in large quantities. Too little vitamin C can cause scurvy, an illness that historically killed thousands of mariners when fresh fruits and vegetables were not available at sea. Learning this, sailors carried limes on long voyages; thus the term “limeys” for sailors evolved.

Nutrients are used for a variety of vital processes. These processes can be broadly classified as follows: 1) maintenance and repair of body tissues, 2) regulation of the thousands of complex chemical reactions that occur in cells, 3) provision of energy for muscle contraction, 4) conduction of nerve impulses, 5) secretion by glands, 6) synthesis of the various compounds that become part of the body's structures, 7) growth, and 8) reproduction. The sum of these processes in which the energy and nutrients from food are made available to and utilized by the body is referred to as metabolism.

Special Diets

Persons with digestive disorders and other illnesses may need special diets. Some of these include:

- Clear Liquid: Clear fluids and foods that are liquid at body temperature, such as broth, gelatin, popsicles and juices. Avoid milk and milk products.
- Full Liquid: Foods that are liquid or liquefy at body temperature such as strained meat and vegetables, cream soups, ice cream, custards, and hot cereals.
- Soft Diet: Foods that are mildly flavored, non-gas forming and easily chewed, such as tender meat, cooked carrots, canned fruit, and pudding. Avoid hard foods, fried foods, most raw fruits and vegetables, and very coarse breads and cereals.

When there is injury in the mouth or oral cavity area or when the patient is nauseous and vomiting, give a clear liquid diet. When there is acute abdominal pain present, and until a diagnosis is established, it is always best to provide only clear liquids or give the patient nothing by mouth. Full liquids and soft diets can be given as the patient improves. Other special diets include bland diet (without spices or difficult to digest foods), low-sodium diet, and diabetic diet (carbohydrates are carefully measured).

HABIT 4: MAINTAIN MENTAL HEALTH AND MINIMIZE CHRONIC STRESS

Recognizing Stress

Any substantial change in your routine, including changes for the better as well as changes for the worse, will make demands on mental and emotional resources. Research has shown that as stresses accumulate, an individual becomes increasingly susceptible to physical illness, mental and emotional problems, and accidental injuries.

When threatened or stressed our bodies mount a chemical response, and this response affects our emotions and outlook. Stress mechanisms, it must be remembered, play a dual role. The rise in anxiety and hormone levels that accompanies stress is essential and protective. All organisms have to experience stress and adjust to it. But, when extreme, the physical effects of stress can stop protecting us and begin to damage us.

Identify the Sources of Chronic Stress

Various versions of stress questionnaires are available that help you identify the most serious sources of stress in your life. Questionnaires provide a list of questions with points indicated for each YES answer. The higher your total score the more stressful your life.

The following questions are adapted from the American Medical Association Family Medical Guide, and from the Wisconsin Department of Workforce Development at: http://www.dwd.state.wi.us/dwd/publications/2242_28a.htm. This web site provides more information on this stress screen.

Questions related to stress during the past six months:

- Has your spouse/life partner died?
- Have you become divorced or separated from your partner?
- Has a close relative other than spouse/partner died?
- Have you been jailed?
- Have you been hospitalized because of injury or illness?
- Have you married, or reconciled with your spouse/partner after a separation?
- Have you been fired, or have you retired?
- Has your immediate family gained a new member?
- Has there been a major change in the health of a close member of your family?
- Have you found out you are soon to become a parent?
- Are you experiencing any sexual difficulties?
- Has a close friend died?
- Have your finances become markedly better or worse?
- Have you changed jobs?
- Is there anyone at home or at work you dislike strongly?
- Have any of your children moved out?
- Is trouble with in-laws causing tension within your family?
- Have you had an important personal success?
- Have you gone back to school?
- Has your spouse retired?
- Have you had jet lag at least twice?
- Have you moved, or done extensive remodeling of your house?
- Are you having serious trouble with your boss?
- Have you taken on a substantial debt?

Practice Relaxation Techniques

When you are under stress, your muscles tighten, causing neck, back or chest pain and making breathing harder. Paying attention to breathing helps muscles relax. Lie or sit comfortably, close your eyes, visualize a “happy” scenario, and breathe in slowly, hold your breath for a few seconds, and exhale slowly through your nose. Continue this technique for five minutes or more at a time, as often as you need it. Long walks, warm baths, meditating, or just sitting quietly can also be soothing.

Discipline yourself to think positively and look to the future. Focus on one issue at a time. Create a plan to address problems. Break down tasks and problems into individual, easily accomplished steps, so that things do not seem overwhelming. Stress sometimes arises from frequent changes in routine; this may be a particular problem shipboard. Establishing and sticking to daily routines can help.

Medications are available to relieve anxiety, and antidepressants can help with low moods. However, these medications have side effects and can be overused or abused. Some are habit-forming and addictive. Follow your physician's advice. Remember, the drugs may temporarily relieve your symptoms, but the underlying cause of stress and anxiety still needs to be identified and addressed directly.

People who become addicted to alcohol often begin to drink to relieve stress and anxiety. Alcoholic beverages add many calories to your diet without supplying nutrients. Alcohol is a widely used and a widely abused psychoactive drug. If you drink alcohol, do so in moderation. (For women, this is defined as one drink a day. For men, two drinks a day. A drink is defined as 12 ounces of beer, four ounces of wine, or 1 oz. of spirits.) Be aware of the dangers of binge drinking (and getting drunk) when on liberty. Drunkenness can lead to serious falls and fights, and impaired judgment can lead to unsafe sexual practices and infectious disease such as HIV/AIDS.

Resources on where to find help, and answers to frequently asked questions about alcohol use, are given at: <http://www.niaaa.nih.gov/faq/faq.htm>

HABIT 5: MAXIMIZE PERSONAL SAFETY

The sea can be a dangerous working environment. Make certain personal protective devices (“life jackets” and other safety equipment) are available. Hypothermia is a common cause of death at sea, especially if one is tossed to sea during an emergency. Always have appropriate cold weather gear easily accessible, and in adequate supply for the entire crew. Educate all crew members about its location and use. Have practice drills.

The shipboard setting poses some particular risks and is often a more demanding physical environment than being on land. Any kind of impairment of your mental and physical functioning can put one at higher risk overall on shipboard. Over-the-counter medications that make one drowsy or sleepy such as antihistamines for allergies,

sleeping pills, and cough medications can adversely affect judgment and physical functioning. Always maintain an ongoing awareness of physical and mental capabilities and take that into account when you plan work and non-work activities each day. The primary responsibility to yourself and those around you is not to take risks when under the influence of alcohol or other drugs or medications. Use common sense.

Avoid exposure to sunlight. Use sun block with sun protection formula (SPF) 15 or higher, more if you are fair-skinned. Wear hats and sunglasses to protect your eyes. These last points are particularly important on board ship where sun exposure can occur for many hours of the day and in relatively unprotected situations.

When on liberty, always wear seat belts: everyone in the moving vehicle, driver and passengers, front seat and back, should always wear seat belts.

Personal Hygiene

Personal hygiene protects the health of each individual and the entire crew. The health of a seaman depends, in part, on his own efforts to maintain habits of cleanliness and neatness.

The importance of regular hand washing cannot be overemphasized. To prevent disease spread by fecal contamination, hands must always be washed immediately after urinating or defecating. Crewmembers should also wash their hands before eating.

In cold weather, hands are less likely to chap if the skin is dried thoroughly. A little petroleum jelly, cold cream, or hand lotion rubbed into the skin after washing may help to prevent chapping and resulting skin infections.

Personal cleanliness includes good care of the skin, hair, nails, mouth and teeth, and proper maintenance of clothing, towel, and other personal gear. A daily bath or shower, particularly in hot weather or after working in hot compartments, is conducive to good health and lessens the possibility for infection. Clean clothing also helps prevent disease.

Care of the mouth and teeth including toothbrushing after meals and daily use of dental floss, are essential to prevent gum disease, infection, and tooth decay. Before brushing natural teeth, any partial dentures should be removed and carefully cleaned with a brush and mild soap or special denture cleanser. Unclean removable dentures spread bacteria to remaining natural teeth. Full artificial dentures should be cleaned regularly after meals, and particularly at bedtime, to remove food residue, which can cause moth odor and encourage infection.

Hair should be shampooed frequently. Short hair can be easier to maintain and can be safer working around equipment with moving parts. Cleanliness aboard ship can

be encouraged by providing sufficient hot water in convenient wash places to facilitate cleansing. Installation of a laundry and drying room for washing clothes also contributes to cleanliness.

Each member of the crew should use their own towel and be responsible for their personal cleanliness. Wet towels should be dried and should not be folded and stowed. Dirty towels should be laundered as soon as possible and not allowed to accumulate. Single-use paper towels are satisfactory only if waste receptacles are provided and used.

Sex

Sexual contact with an infected person can result in a range of diseases – from treatable diseases like gonorrhea, syphilis, and chlamydia to life-threatening ones like HIV/AIDS. Many persons have these diseases and don't know it. Thus, they can unknowingly transmit them to you. You can have sex with someone who seems healthy and still get a disease – a disease as serious as HIV/AIDS.

The risk of acquiring and transmitting sexually transmitted diseases (including HIV) is higher among certain groups: those who have had homosexual sex, prostitutes, injection drug users who share needles, and individuals who have had sex with numerous partners or sex with anyone in a high-risk group.

The only sure way to prevent sexually transmitted diseases is not to have sexual contact. The risk can be reduced (but not eliminated) by having only one partner and using condoms. Be sure you know the proper way to use condoms – unprotected penetration and the exchange of any sexual fluids can transmit disease.

HABIT 6: MANAGE SUFFICIENT, RESTFUL SLEEP

Sleep requirements differ widely. If you always wake up after only five or six hours and find it impossible to drop off again, do not worry; this is probably as much sleep as you need. There is generally no cause for concern if you usually wake up briefly once or twice during the night. However, seven to eight hours of sleep is the average needed to sustain maximal mental and physical performance indefinitely. Needing an alarm to awaken, morning sleepiness, and afternoon tiredness and drop in performance may be signs of insufficient sleep.

If you have trouble falling asleep, remember that coffee, tea, colas, chocolate, many cold medicines and pain relievers, and diet aids contain caffeine or related stimulants, which can keep you awake and prevent restful sleep. Switch to decaffeinated beverages. Avoid caffeine in the afternoon and evening. Reduce your consumption of alcohol. Many people drink alcohol at night to help them sleep though this may not be a restful sleep. Practice a good sleep routine. Lie down to sleep at the same time every night and rise at the same time in the morning. Try to schedule work hours so you can be on a regular schedule.

Watch Standing

Standing watch can have a severe impact on sleep and wake cycles. Most of us appear to do better if we stay on a consistent cycle. Studies have shown that people who work variously changing shifts are not as well rested as those on regular daily schedules.

People who stand watch at night must use extra care to stay rested. Sleep during daytime hours is often disrupted by noise, light or by natural circadian (day-night) cycles. This results in more of the less useful stage 1 sleep. If you stand watch at night, uninterrupted daytime sleep is critical. Avoid the temptation to stay awake during the day, too.

When standing watch at night, be aware that in more risky situations or undertaking more difficult physical activities, extra concentration is needed. Working in darkness adds to the challenge. An individual is more likely to fall asleep in a boring or non-stimulating environment and while performing a monotonous task. If an emergency suddenly develops at sea, immediately gaining peak performance can be difficult. Tasks that are likely to be very sensitive to sleep impairment include monitoring data displays for critical levels, monitoring for quality control purposes, and sentry or patrol duties. It can be difficult for the individual to accurately assess his/her limitations when sleep impaired and may be unable to do the complex task of objectively judging one's own performance.

HABIT 7: GET PROFESSIONAL PREVENTIVE CARE WHEN ASHORE

Most prevention is personal, but to take good care of yourself you will sometimes require professional help. Increasingly, the periodic checkup is being used not so much for the detection of disease as for the opportunity to counsel about health habits, so that we can do a better job of personal disease prevention. The periodic screening tests in several specific areas are important, as recommended by the U.S. Preventive Services Task Force.

More information is available at: <http://www.ahrq.gov/clinic/prevnew.htm>

Try to arrange to take these tests when you are ashore:

- Blood pressure checked at least every other year or so.
- Women over age 20, have a cervical Pap smear taken every year or two; after three normal tests, have a Pap smear every 3 years from then on.
- Get annual breast exams done by a medical professional.
- Mammography is a yearly screening procedure recommended for women after age 40 (with high risk) or age 50.
- Skin should be examined annually for any suspicious moles or other lesions.

- Prostate cancer screening with a digital rectal exam is recommended for men annually starting at age 50. Some groups recommend the blood test, prostate specific antigen (PSA).
- After age 50, tests for colorectal cancer (digital rectal exam and occult blood test) are advisable on an annual basis. In addition, sigmoidoscopy every 5 years or colonoscopy every 10 years is recommended.
- Serum cholesterol and triglycerides should be measured at intervals of five years, and more frequently if total cholesterol is elevated.
- Fasting blood glucose (diabetes screening) should be checked every 3 years; earlier in those with a strong family history.
- A dental checkup should be done every 6 to 12 months.
- Vision and hearing should be checked annually.

Immunizations have had far greater impact on health than all other health services put together. Follow immunization recommendations and maintain a written record.

Techniques for estimating your future health risk, termed health risk appraisal or health assessment, have been developed. A questionnaire is completed about lifestyle and health habits. Responses are entered into a computer to estimate the likelihood of developing medical problems such as heart disease and cancer. These estimates can help you shape your own personal health program. Remember that the results are estimates and the predictions are only averages: some people will do better than the estimates predict, and others worse. Your actual risks will depend upon any changes you make in your health habits. The health risk assessment itself provides no health benefits unless it results in positive changes in your behavior. If you participate in such an assessment it should be part of a program that not only identifies risk but also helps you to make positive changes.

SUMMARY

Make a lifetime habit of health and wellness!